

Apple-Works Forum

A Publication of NAUG: *The National AppleWorks Users Group*

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Five Dollars

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Support for AppleWorks and ///EZ Pieces Users

Planning for the Future

We enjoy most of our responsibilities with NAUG. But keeping the budget in balance is one of our least-favorite activities. Every 18 months or so we must revisit our finances and make certain that the organization's revenues and expenses are in balance.

It is now a year-and-a-half since we last adjusted the rates for the *AppleWorks Forum*, and the recent increase in the cost of paper and the pending jump in postal rates are forcing us to re-assess the financial status of the organization. Once again, we must either increase our revenues or decrease our costs.

Our informal surveys suggest that although many NAUG members would not object to higher membership dues, the majority of the members want us to explore every way to save money.

So here are our plans: Starting this December, we will publish 24-page issues of the *AppleWorks Forum*. We will use those pages more efficiently by eliminating all full-page advertising (currently two pages per issue), eliminating the full-page table of contents, and publishing the complete Members Helping Members data base only once per year. (These were valuable suggestions made by members in response to our informal survey in 1993.) These changes will result in substantial savings with only three fewer pages of text in each issue of the newsletter.

We know that not all NAUG members will agree with this decision, but we believe these plans are in the best interest of our fellow members.

We also need you to continue sending us your suggestions for the future of NAUG. Over the years you have submitted hundreds of creative, useful ideas that have improved our service and reduced our costs. We need your continued help with this process as we move into the second half of the 90's.

AppleWorks 4 Data Base Tip

Dear NAUG:

Here is a suggestion for AppleWorks 4 data base users:

Opening an AppleWorks 3.0 data base file with AppleWorks 4 converts the file into AppleWorks 4 format. But the converted file sometimes locks up your system.

To avoid this problem, save the AppleWorks 4 data base on disk after you convert the file. Then remove the file from the desktop and re-load it into AppleWorks 4.

I discovered the problem and work-around when I tried to set selection rules after importing an AppleWorks 3.0 file. AppleWorks 4 would not let me set the selection rules until I saved the file, deleted the file from the desktop, and re-loaded it from my disk.

John Morgan
Florrissant, Michigan

[Dan Crutcher replies: Although I never experienced this problem, I do know that AppleWorks 4 data base files (which includes any AppleWorks 3.0 data base files that were loaded into AppleWorks 4 and saved to disk from AppleWorks 4) will often lock up your system if you try to open them with AppleWorks 3.0. When you convert a data base file from AppleWorks 3.0 to AppleWorks 4, append a "4" to the file name so you know which version it requires.]

AppleWorks Forum

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How to Compute Ages

Dear NAUG:

Can you suggest a data base formula that uses the Julian date and a person's birthday to calculate that person's age? I am working with senior citizens and several were born before 1904. The formulas I develop makes them teenagers, which is nice but not really effective.

Art Mahon
Clear Lake, Iowa

[Steve Beville responds: Here's a formula that calculates the age correctly. The formula checks the month and day to see if the birthday has passed for the current year and adjusts the age accordingly. In other words, it doesn't make you a year older until your birthday arrives.]

```
@If ([birthdate]="", "", @YrFromJul (@DateToJul (@Today))  
-@Val (@Right ([birthdate], 4)) -@If (@And (@YrFromJul  
(@DateToJul (@Today)) -@Val (@Right ([birthdate], 4)),  
@Val (@Left (@Right ([birthdate], 7), 2)) -@DayFromJul  
(@DateToJul (@Today)) < 1), 0, 1))
```

Spell Checker Tip

Dear Cathleen,

The Main Dictionary for AppleWorks 3.0 contains more words than the dictionary supplied with some copies of AppleWorks 4.x. As a result, your version of AppleWorks 4 might report some common words (for example "forward") as misspelled; AppleWorks 3.0 has no problems with these words.

Apparently something went wrong when Quality duplicated the Main Dictionary file for some copies of AppleWorks 4; words in the "fo..." range are missing.

To test if you have the complete dictionary, create a new word processor document, type the word "forward", and spell check the document. If AppleWorks reports a spelling error, you have the abbreviated dictionary file.

According to Randy Brandt, the solution is to copy your old AppleWorks 3.0 Main Dictionary file into the AppleWorks 4 directory. That replaces the

defective file with the complete original. Randy reports that he made no changes to the spelling dictionaries in AppleWorks 4.

Dan Crutcher
Louisville, Kentucky

Repair Shop for Vulcan Drives

Dear NAUG:

Owners of Applied Engineering Vulcan hard drives should know about B&D Computer Repair.

After four months of intermittent operation, my trusty 100-megabyte Vulcan hard drive failed completely and would not boot my computer. After contacting B&D, I shipped my drive off to the company. Larry Beyer, B&D's knowledgeable owner, called my home several times to discuss the problem. Then he charged me only \$35 to repair the drive.

Today, my drive is back in operation and is working perfectly. I have the highest praise for Mr. Beyer and recommend his company to anyone with a similar problem.

Ken Witkin
Fort Washington, Maryland

[Ed: B&D Computer Repair, 6115 S. Massasoit, Chicago, Illinois 60638; (312) 735-9010.]

Please let us know about your experiences with vendors so we can pass along your recommendations to your fellow NAUG members.]

Corrections

Please make the following changes to the August / September 1994 issue of the **AppleWorks Forum**:

Page 9, Column 2, Last Line: Randy Brandt reports that he plays competitive ice hockey when he wants a relaxing evening.

Page 9, Column 2, Memory Plus advertisement: Our apologies to Fred Cortazzo at Memory Plus for the light printing of his advertisement. We appreciate Mr. Cortazzo's low prices and continued support for NAUG.

The **National AppleWorks Users Group (NAUG)** is an association that supports AppleWorks users. NAUG provides technical support and information about AppleWorks and enhancements to that program. Our primary means of communicating with members is through the monthly newsletter entitled the **AppleWorks Forum**.

How to Set Up a RAM Disk for AppleWorks 4

by Douglas Gum

This is the first of two articles that describe how to use RAM disks with AppleWorks 4. This month's article describes the benefits of RAM disks and shows you how to set up a RAM disk on an Apple IIGS computer. Next month's article will show you how to set up RAM disks on Apple IIe and Apple IIC systems.

As an AppleWorks user, you probably know that AppleWorks can often outperform comparable applications running on faster Macintosh and IBM-compatible systems. That is because Robert Lissner, AppleWorks' original creator, optimized the program to work with the microprocessor that forms the core of your Apple II computer. But despite its impressive speed, AppleWorks users are always looking for ways to speed up the program.

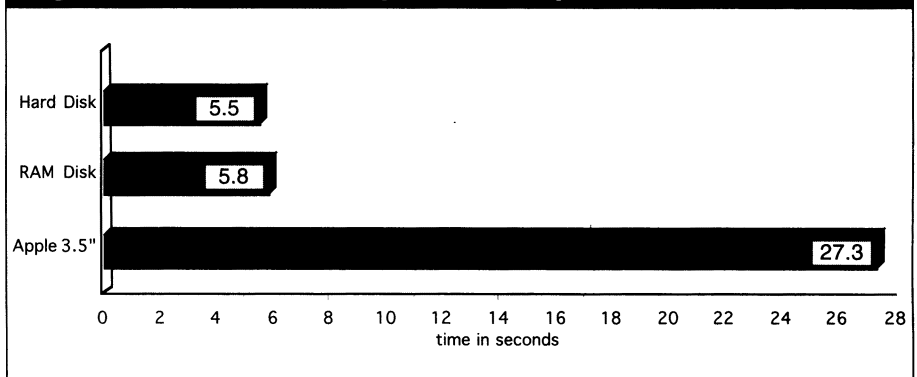
One of the easiest ways to accelerate AppleWorks is to set up a RAM disk.

What is a RAM Disk?

A RAM disk is a portion of computer memory reserved to emulate a disk drive. AppleWorks accesses data files or subdirectories on a RAM disk the same way it uses information stored on physical disks but without the usual time delay required to spin up and find the right sector on the disk.

How much you benefit from a RAM disk depends on your system. For example, the slower your disk drive, the more you gain from a RAM disk. Hard disk drives are faster than floppy drives, so owners of floppy-disk based systems see larger performance boosts than do users with fast hard disk drives. [Ed: The author uses a RamFAST SCSI card which provides accelerated hard drive performance. Owners of Apple SCSI cards report that

Figure 1: RAM Disk Speed Comparisons



RAM disks run 15% – 30% faster than their hard drive systems.]

The amount of memory in your computer also affects the benefits you receive from a RAM disk. AppleWorks users need at least 210K of unused memory to set aside for useful RAM storage. [Ed: Fortunately, adding memory to an Apple II is inexpensive these days. NAUG sells 1-megabyte Apple IIe memory cards for \$59.95, 1-megabyte Apple IIC memory cards for \$119.95, and 4-megabyte Apple IIGS memory cards for \$129.95. So there is good reason to add memory to your system and use a RAM disk to eliminate the few delays you encounter when running AppleWorks.]

In summary, the slower your disk drive and the more memory in your computer, the more you will benefit from using a RAM disk on your system.

Word processor users working on floppy disk-based systems with unused desktop capacity get

AppleWorks 4 Primer...

the greatest benefits from a RAM disk. This improvement is most noticeable when you spell check a document. Once you experience the speed of a RAM disk-based spell checker, it will be hard to return to the disk-based system built into AppleWorks.

For example, consider *Figure 1*, which illustrates the speed gains achieved by storing AppleWorks' spelling dictionaries on a RAM disk. (I performed these tests on an unaccelerated Apple IIGS with 3.5-inch disk drives plugged into the SmartPort and a SCSI hard drive attached to a RamFAST SCSI Card.) Similar speed increases occur when you store your TimeOut Grammar phrases and the DT.SYNONYMS file from TimeOut Thesaurus on a RAM disk.

What Not to Copy

If a RAM disk is fast, you might think it best to copy all your files onto that "disk". But a RAM disk has limited space that you should use judiciously. You should only copy a few larger files onto your simulated disk drive.

The sidebar "Why Not Store AppleWorks on a RAM Disk?" tells you why you should not copy AppleWorks onto your RAM disk.

Copying AppleWorks Inits or TimeOut applications onto the RAM disk would also be a mistake. Inits run only once during startup, so you won't save time by copying those files onto the RAM disk.

And the easiest way to avoid loading often-used TimeOut applications from disk is to access the TimeOut Utilities and change the memory status to "Memory-based". TimeOut will then copy those applications into desktop memory each time you launch AppleWorks.

How to Manage a RAM Disk

Thus, using a RAM disk takes some thought; you must decide how much memory to reserve for the "disk" and what to store on the "disk".

You must also remember that a RAM disk is volatile; you lose the information stored on the disk when you turn off the computer or when the power goes out. That makes a RAM disk an unwise

AppleWorks Memory Management

AppleWorks has gotten a lot faster during its evolution over these past ten years. Much of its increased speed results from improvements in the way AppleWorks handles the loading of program segments into memory.

AppleWorks has always been "smart" about using memory. Even the earliest versions of AppleWorks retained program segments in memory when you used a program function. AppleWorks' internal memory manager only flushed the segment from memory when it needed that space for a desktop data file or another program segment.

AppleWorks 2.0 offered improved memory management by testing the amount of memory in your machine at startup. If there was enough room, AppleWorks 2.0 would pre-load all the program segments. Unfortunately, the printer drivers were not included in this pre-loading operation, nor were they held in memory after use. Each time you wanted to print a document, AppleWorks 2.0 had to access a disk drive.

Version 3.0 not only pre-loaded the printer drivers, but also let you select the AppleWorks modules you wanted to pre-load. If your computer had enough memory and you set the pre-loading option to "All", AppleWorks 3.0 could operate without the program disk. The only exception was the spell checker, which still had to access a disk to read the dictionary files.

As you can see from the accompanying article, AppleWorks 4 adds another feature; the ability to automatically copy its spelling dictionaries onto a RAM disk. That makes AppleWorks completely independent of your disk drive. And the spell checker pre-loader is "smart"; it checks the RAM disk before copying the files and does not perform the copy operation if the dictionaries are already on the RAM disk.

choice for data storage. But it is an excellent place to store the files you access repeatedly like the spell checker dictionaries, TimeOut Grammar phrase lists, and TimeOut Thesaurus synonyms.

Why Not Store AW on a RAM Disk?

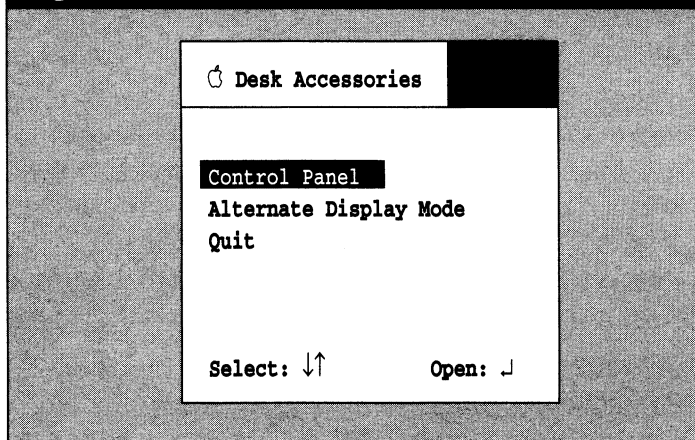
If RAM disks are so fast, why not copy all of AppleWorks onto your RAM disk?

If AppleWorks was like most applications, you would get better performance by copying the program onto your RAM disk. But the pre-loading options built into AppleWorks let you load the program into RAM when you launch the application. And once you pre-load the program into memory, it operates at RAM disk speed without a RAM disk.

If you copy AppleWorks onto a RAM disk, you will have two copies of the program in RAM; one in the portion of memory set aside as your RAM disk, and one in the area of memory AppleWorks uses to pre-load the modules. There is nothing to gain from this second copy of the program.

You probably have excess memory in your computer. But you can use it for better purposes than to store redundant copies of AppleWorks.

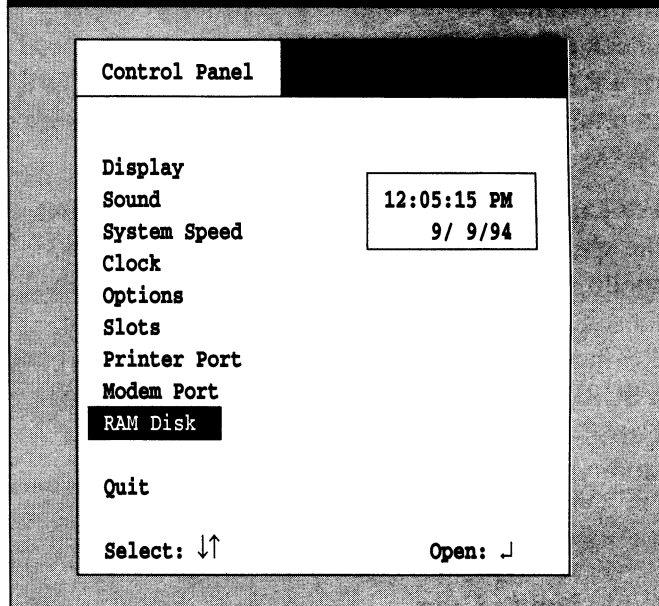
Figure 2: Desk Accessories Menu



But remember that any changes you make to these files are also “volatile”. For example, any words you add to the CUST.DICTIONARY file on the RAM disk will be available to AppleWorks only as long as the computer is on. Turn the computer off and it will forget your new words.

To overcome this problem, you must copy the CUST.DICTIONARY file from the RAM disk onto your AppleWorks program disk before turning off the computer. You can use AppleWorks 4’s built-in file utilities to make this copy.

Figure 3: IIGS Control Panel Menu



Getting Started

The first step when creating a RAM disk is deciding the size of that disk. You declare the size of your RAM disk during the disk creation process and you cannot change that size without deleting the files from the disk.

Storing your AppleWorks spell checker dictionaries requires a 207K RAM disk; 200K for the dictionaries, 5K for disk “overhead”, and 2K for new words you might add to the custom dictionary.

You need to increase that total if you want to store other files in RAM. But remember that any memory you set aside for a RAM disk will not be available to AppleWorks or any other ProDOS-8 or GS/OS application.

Creating a RAM Disk on an Apple IIGS

You can create a RAM disk on any Apple II system, but the process is easiest on an Apple IIGS because Apple built support for RAM disks into the ROM chips in these computers. Once you configure your system, your IIGS computer will set up a RAM disk each time you turn on the power.

Follow these steps to set up the “disk”:

1. Turn on your system and press the Control-Reset Keys to halt its operation. If the computer is already on, continue with step #2.

2. Hold down the Apple and Control Keys. Then press and release the Escape Key. Finally, release the Apple and Control Keys. That accesses the Desk Accessories Menu in *Figure 2*. The menu that appears on your screen may list some additional choices if you use an accelerator or if you launched your IIGS from a GS/OS system disk that has extra Classic Desk Accessories (CDAs) installed in your system.

3. Use the Up and Down Arrow Keys to highlight "Control Panel", then press the Return Key. That displays the Control Panel Menu in *Figure 3*.

The Control Panel is a CDA stored in the computer's ROM. The Control Panel lets you customize several firmware configurations, including your RAM disk settings.

4. Use the Up and Down Arrow Keys to highlight "RAM Disk", then press the Return Key.

Your system will display the RAM Disk Menu in *Figure 4*. (The menu is different on ROM 03 machines which only offer one "RAM Disk Size" setting. ROM 01 machines show choices for "Minimum RAM Disk Size" and "Maximum RAM Disk Size". Apple originally let you set up a RAM disk that would expand automatically if files became larger than anticipated, but they later discovered that specifying a range of RAM disk sizes could lead to data loss. If your IIGS is a ROM 01 system, be sure to set the same minimum and maximum RAM disk sizes for your computer.)

5. The IIGS firmware lets you set your RAM disk size in 32K increments. Use the Up and Down Arrow Keys to highlight "Minimum RAM Disk Size". Then use the Right Arrow Key to set the

Figure 4: Apple IIGS RAM Disk Menu

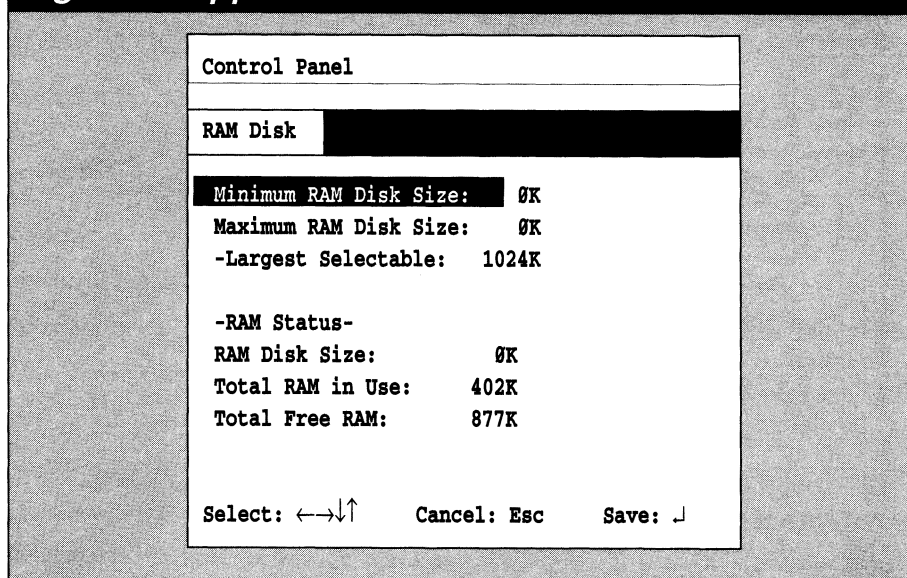
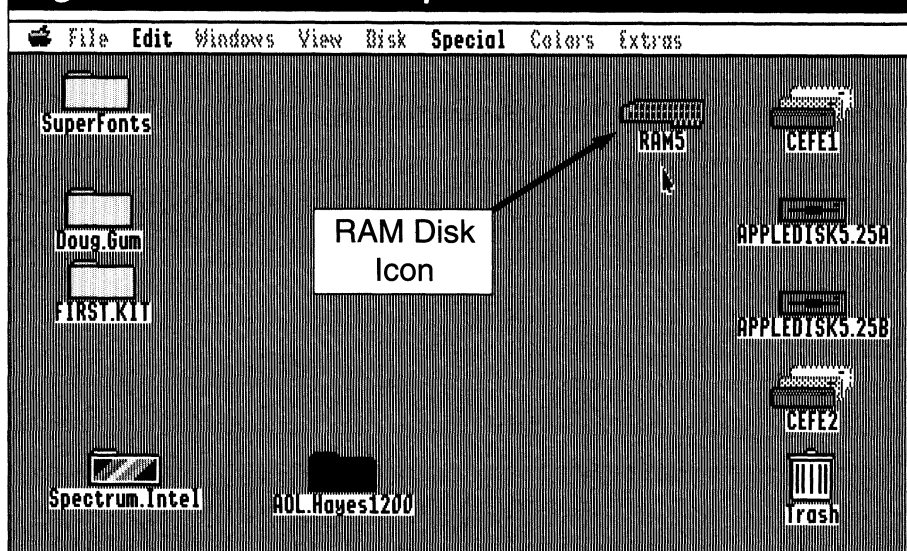


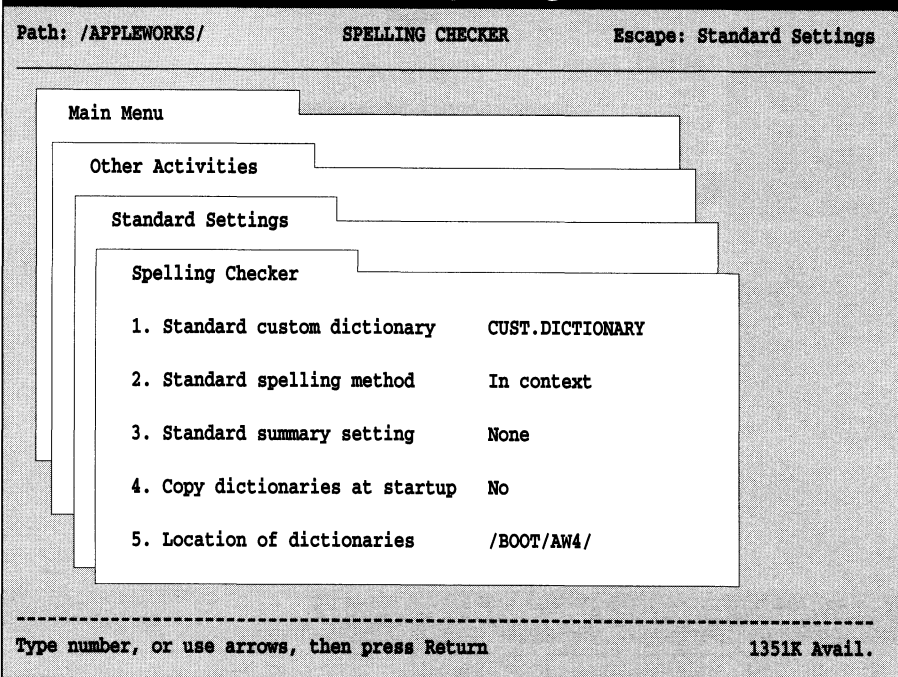
Figure 5: Finder Desktop with a RAM Disk



size of the RAM disk to 224K. If you overshoot 224K, use the Left Arrow Key to return to a lower number. Set this value to a higher number if you want to store more files on your "disk".

6. Press the Return Key to save the settings and return to the Control Panel Menu. If you press the Escape Key instead of the Return Key, your system will not save your RAM disk settings.
7. Choose "Quit" and press the Return Key to go back to the Desk Accessories Menu.
8. Choose "Quit" again and press the Return Key to leave the IIGS Control Panel.

Figure 6: AppleWorks 4 Spelling Checker Menu



the IIGS desktop. Then launch AppleWorks 4 from the Finder.

2. Press Apple-Q to display the Desktop Index and then press Apple-S to access the Standard Settings Menu.
3. Choose "Spelling Checker options" to display the Spelling Checker Menu in Figure 6.
4. Change "Copy dictionaries at startup" to "Yes".
5. Change "Location of dictionaries" to "/RAM5/". That is the ProDOS volume name that the IIGS automatically assigns to your RAM disk. [Ed: If you changed the default name with the Finder, enter the edited name for the "Location of dictionaries" setting.]
6. Press the Escape Key. AppleWorks will write the two changes you made to the Spelling Checker Menu onto your program disk.
7. Quit AppleWorks and re-launch the program.

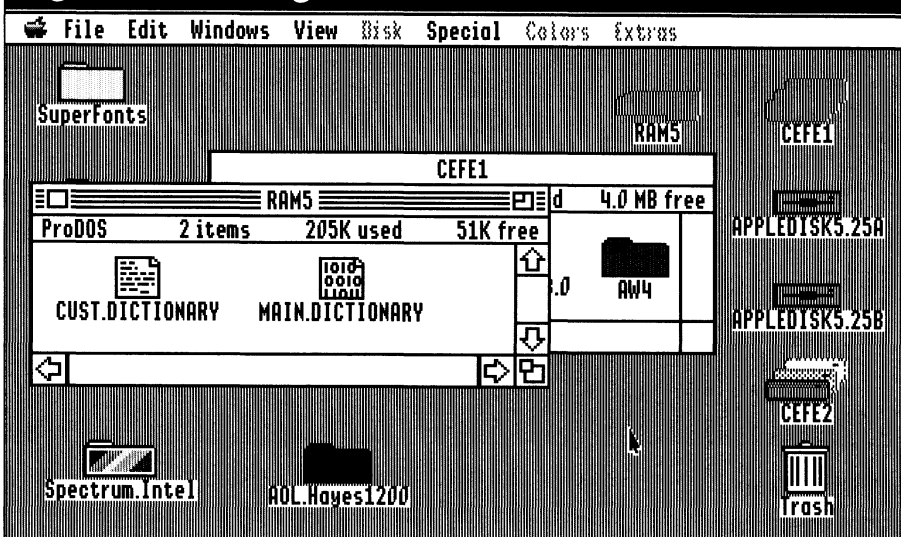
When AppleWorks loads, you should see a "thermometer" fill as the program copies the MAIN.DICTIONARY and CUST.DICTIONARY files to the RAM disk. If you do not see the thermometer or if you get an error

message, go back to step #1 under "Creating a RAM Disk on an Apple IIGS", verify that all the settings are correct, reboot your system, and re-launch AppleWorks.

Then spell check a document and you will see how much your RAM disk can speed up AppleWorks.

You can use any disk catalog program to list the files on the RAM disk. For example, quit AppleWorks, return to the Finder, and double-click on

Figure 7: Viewing RAM Disk Contents



Configuring AppleWorks 4

Next, you will configure AppleWorks 4 so it automatically copies the spell checker dictionaries to the RAM disk. Follow these steps:

1. Turn off your computer, wait 10 seconds, and then restart the computer with the AppleWorks 4 program disk or a GS/OS system disk. If you boot your computer with the system disk, you should see the RAM disk icon in Figure 5 on

AppleWorks 4 Primer...

the RAM disk icon. The Finder will display the two dictionary files that you stored on the "disk" (see Figure 7.)

Conclusion

This month you learned some "do's" and "don'ts" for RAM disks. You also learned how to set up an Apple IIGS RAM disk that stores AppleWorks' spelling checker dictionaries. Next month, you will learn how to create and use RAM disks on Apple IIc and Apple IIe computers.

[Douglas Gum is the owner of Office Productivity Software and the author of several TimeOut products including TimeOut DiskTools and TimeOut ShrinkIt Plus. He also provides contract programming services for the Apple II community.]

Data Base Tips

Review Your Report Formats

by William Neef

Prior to AppleWorks 4, your report printouts and Review/Add/Change displays were independent; changing the Review/Add/Change screen had no impact on your data base reports.

That changed with AppleWorks 4, which lets you set the format of categories in the Review/Add/Change screen.

To format a category, you put the cursor on the category in Review/Add/Change, press Apple-O, and choose option #3, "Set Formatting". That lets you control the on-screen format of the entries in that category. Then you press Apple-U to update the file.

These changes affect both the Review/Add/Change screen and the report formats, with one exception: They do not affect categories that you told AppleWorks 4 to total in a report. Specifically, your new Set Formatting instructions in the Review/Add/Change screen do not affect the printed output of these totalled categories. To format these categories, you must press Apple-T to remove the report format total and then re-set the total.

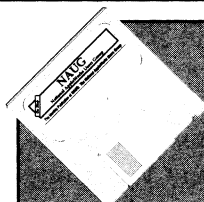
If you have an AppleWorks 4 data base file with established report formats, you should review those formats whenever you change the format of a category in the Review/Add/Change screen. Pay particular attention to the format of any totalled categories in the report.

[William Neef is a retired purchasing agent for Welding Metals, Inc. and is Treasurer of the Apple Jackson (MI) Users Group.]



MOVING?

Remember to notify **NAUG** if you change your address. Do not rely on the post office to forward your mail; you may miss some issues. Send address changes to **NAUG**; Box 87453; Canton, MI 48187.



NAUG on Disk

Here is a valuable monthly disk that saves you time and makes you more productive with AppleWorks. Each issue of NAUG on Disk includes:

- An electronic copy of the complete *AppleWorks Forum*.
- Working copies of all macros and patches.
- Working versions of all templates.
- An update to the Electronic Index.
- Public domain templates, utilities, and programs.
- Unpublished articles.

One year subscription (10 disks): \$90

Single disk: \$10 postpaid

NAUG • Box 87453 • Canton, MI 48187

(313) 454-1115 • Fax (313) 454-1965

Prices are in U.S. Dollars. International orders by credit card only, international airmail postage additional. NAUG on Disk requires AppleWorks running on an Apple II or compatible equipped with a 3.5-inch disk drive. Many templates and macros require AppleWorks 3.0 or later.

Late News for AppleWorks Users

NAUG in Chicago

NAUG members in the Chicago area should stop by the NAUG booth at one of the upcoming Computer Central shows. (Computer Central is the mid-west's oldest and largest multi-vendor PC show for home and business. Although vendors focus on PC equipment and software, you will find occasional Macintosh and Apple II items at the show.) Present a copy of the address label on this issue of the *AppleWorks Forum* and you will receive a \$1 discount from the regular \$6 admission to the show.

The next Computer Central shows are from 9:30-3pm October 9th (in Building "M" at Harper College) and October 30th (in the Physical Education Arena at the College of DuPage). Be sure to say "Hello" to Howard Katz, Joe Walters, Bill Swiss, and George Murphy who graciously volunteered to staff the NAUG booth. Our thanks to long-time NAUG member Vic Weisskopf for donating the space to NAUG and to the other user groups at the show.

For more information, contact Computer Central at (708) 940-7547 or leave a message for Howard Katz on NAUG's bulletin board service, the Electronic Forum.

America Online Drops Apple II

America Online will discontinue support for Apple II computers effective November 1, 1994.

As old-time NAUG members will recall, America Online started as AppleLink – Personal Edition in 1988. At the time, most users logged on with their Apple II systems; America Online was the first service to support automatic transmission of AppleWorks files.

In recent years, America Online has grown rapidly with dramatic increases in the number of Macintosh, MS-DOS, and Windows users on the system. The company now plans a major reorganization of its on-line structure, which requires them to develop new "front-end" software that you use to access

the system. It appears that the company does not want to make the substantial investment necessary to develop those programs for Apple II computers.

NAUG has a long relationship with America Online, and Joe Connelly, NAUG's representative on the service, maintains the NAUG area and the complete library of NAUG software on the system. America Online will continue to support its Apple II libraries, and NAUG members with Macintosh computers can still download those files and use Apple File Exchange to transfer them to their Apple II systems.

Meanwhile, the Apple II community is encouraging America Online members to sign onto the system at 9 P.M. EST on October 31, 1994 for an hour of saying "hail and farewell" to other America Online Apple users. You might also send Steve Chase, the President of the company, an electronic message saying "goodbye" and reporting how much you spent on the service during the past year.

Special Offer from Vitesse

NAUG members can now get a special discount price on Vitesse's Quickie scanner and WestCode's InWords software.

The Quickie is a hand-held scanner that can capture graphics and text on Apple IIGS computers and enhanced Apple IIe systems.

InWords is an optical character recognition program that converts scanned pages of text into AppleWorks word processor files. (A review of the current version of InWords appeared in the October 1993 issue of the *AppleWorks Forum*. The Apple IIGS reviewers were pleased with InWords; Apple IIe users were less satisfied with the program.)

The Quickie scanner originally sold for \$299. InWords has a suggested retail price of \$129.95. While supplies last, Vitesse is selling the Quickie/InWords bundle for \$99.95 plus \$7.50 s/h.

[Vitesse, Box 929, LaPuente, California 91747; (800) 777-7344; Fax: (818) 813-1273.]

How to Create Magnetic Signs and Business Cards with AppleWorks

by Cynthia E. Field

This is the fifth in a series of articles that describe projects you can create with AppleWorks and TimeOut SuperFonts. This month you will learn how to make small magnetic signs and business cards from layouts you create with TimeOut Paint.

When you think about desktop publishing, you probably think about page layout programs like Publish-It! or AppleWorks GS. But creative Apple II users can design many interesting and useful desktop publications with AppleWorks, TimeOut SuperFonts, and TimeOut Paint.

This month you will learn how to use these programs to design documents that are 3.5-inches wide by 2-inches high. Those of you who are self-employed or who run a sideline business may recognize that this is the size of standard business cards. You can also use this layout to make small magnetic signs like the example in

Figure 1. [Ed: See "AppleWorks GS Signs" for tips on creating business cards and magnets with the page layout module built into AppleWorks GS.]

I created four dozen of the refrigerator door magnets in *Figure 1* as souvenirs for National Night Out, an anti-crime block party which I helped organize in my neighborhood last summer. Each magnet includes information about the event and a list of emergency telephone numbers. Quick access to these numbers by adults, children, or baby sitters could be life-saving.

Overview

Creating small magnetic signs and business cards is easy. Using TimeOut Paint you draw a 3.5-inch by 2-inch rectangle. Then you enter the text and align the elements of your design. A simple AppleWorks word processor document with two Super-

Figure 1: Sample Magnetic Sign

Narragansett Avenue East Neighborhood
Watch
National Night Out
August 2, 1994

EMERGENCY NUMBERS

Emergency, Fire, Police	911
Poison Control	1-444-5727
Relative or Neighbor	_____
Physician	_____

Fonts command lines is all you need to print your little sign or business card.

After printing, you cut out the design with a paper cutter or scissors and attach the sign or card to self-adhesive 3.5-inch by 2-inch business card magnets.

You can use the same template to produce business cards that you can photocopy on card stock instead of applying to magnets.

What You Need

You need the following supplies and software to complete this project:

- Business card-size magnets. These costs about 40 cents each from PaperDirect (see the Company List).
- Scissors or paper cutter.
- AppleWorks 2.0 or later.

Figure 2: Setup for Printing Sign Template

```
File: Sign.Printer          REVIEW/ADD/CHANGE          Escape: Main Menu
=====
<p1=/cefe1/appleworks.3.0/sign.templ>

<p1,10,20,559,159>

-----
Type entry or use ⌘ commands      Line 1 Column 1      10/01/94  1:40
```

- TimeOut SuperFonts.
- TimeOut Paint.

Creating the Sign Layout Template

You will start by using TimeOut Paint's Box Tool to create a rectangle that will serve as the blank sign template. Follow these steps to prepare the template:

1. Launch AppleWorks and press Apple-Escape to display the TimeOut Menu. Choose "Paint".
2. Select "Coordinates" from the Goodies Menu. *[Ed: See the article entitled "How to Create Jigsaw Puzzles with AppleWorks" in last month's issue of the **AppleWorks Forum** for more information about using coordinates.]*
3. Choose "Box" from the Tools Menu. Note that an icon representing the active tool appears on the TimeOut Paint Menu Bar. You can toggle the Menu Bar on and off by pressing the Escape Key. Turning the menu off gives you an uncluttered view of your design.
4. Without pressing the mouse button, move the mouse to coordinates 10, 20. These represent the x and y values on the paint "canvas". *[Ed: You can also use keyboard commands to perform all the TimeOut Paint functions. Complete directions appear in the documentation that comes with TimeOut Paint.]*
5. Press the mouse button and drag the mouse down and to the right. Draw a large rectangle whose lower right-hand corner is at coordinates 559,159. Release the mouse button. The rectan-

gle should take up most of the screen.

6. Save the template as "SIGN.TEMPL".
7. Press Apple-Q to leave TimeOut Paint and return to AppleWorks.

Creating the Business Card Template

Next, you will create an AppleWorks word processing file to print the card. Follow these steps:

1. Add a new word processing file to the desktop. Name the file "SIGN.PRINTER".
2. Type the two TimeOut SuperFonts command lines in *Figure 2*. The command on line 1 tells SuperFonts the name and location of your SIGN.TEMPL file. Use the appropriate path-name in the first line of this document. The command on line 3 tells SuperFonts the dimensions of the card by listing its coordinates.
3. Save the word processing file.
4. Press Apple-Escape, choose "SuperFonts", and print the sign on your screen or printer using high quality print mode.

The printed rectangle should measure about 1/16-inch less than 3.5-inches by 2-inches. That lets you use the outer edge of the rectangle as a cutting guide and still have the design fit the magnet.

If the printed rectangle is not the right size, launch TimeOut Paint, open the SIGN.TEMPL file, and move the mouse to the rectangle's top left and bottom right corners to check the coordinates. If they are wrong, start a new SIGN.TEMPL painting or use the Marquee Tool and Apple-X to cut the incorrectly sized rectangle. Then re-draw the rectangle. Save any changes to the SIGN.TEMPL file.

Creating the Sample Sign

Now you will use SIGN.TEMPL to create your magnetic signs or business cards. Follow these steps:

1. Launch TimeOut Paint and open the SIGN.TEMPL file.

2. Select "Save as" from the File Menu and save the file with a new name. As you complete your sign, you should occasionally save your work with Apple-S.
3. Select "Text" from the Tools Menu.
4. Choose "Font" from the Goodies Menu. Select a font that is at least 12-points, then click on the Open Button to load the font. (You can choose smaller fonts if you have a high-resolution printer, but 12-points may be the lower limit for readability with ImageWriters and other dot matrix printers.) I used 12- and 14-point New York and 12-point Geneva to create the magnetic sign in *Figure 1*.
5. Click the L-cursor in the blank area under the rectangle and type the text for the first line of your sign or business card. You can use the Delete Key to backspace and erase text.
6. After you type the first line, choose "Marquee" from the Tools Menu. Then click and drag the mouse over the text to select the line of text.
7. Drag the line of text into the correct position on the sign. Center, left, or right justify the line visually.
8. Use the Marquee Tool and Apple-X to select and delete the line of text you typed below the sign to clear the drawing board.
9. Repeat steps #3 through #8 for each line of text. Skip steps #3 and #4 if you are not changing fonts. The active font remains available until you select another.
10. Save your design and press Apple-Q to return to AppleWorks.
11. Next, you must change the SIGN.PRINTER template so it reflects the file and pathname of your new sign. *Figure 3* shows the changes I made to print the National Night Out souvenir magnet that I named "SIGN.NITEOUT".

Tips for Sign Design

TimeOut Paint is not a desktop publishing program, but creative users can find workarounds that simulate some desktop publishing tools. For example, you can create a more pleasing appearance by inserting two spaces between words in a title or headline. This is a crude form of letter-spacing, or "kerning" in desktop publishing parlance.

If you are making an emergency telephone numbers magnet like the example in *Figure 1*, use Shift- (underline) to create a line for a phone number that the recipient will pencil in by hand.

You can also experiment with clip art graphics and picture font symbols in your signs. This is especially true if you are designing a business card. Pictures can often draw attention to your card or communicate your message more effectively.

Figure 3: Setup for Printing Final Sign

```
File: Sign.Printer          REVIEW/ADD/CHANGE          Escape: Main Menu
=====
<p1=/cefel/appleworks.3.0/sign.niteout>

<p1,10,20,559,159>

-----
Type entry or use ⌘ commands          Line 1 Column 1          10/01/94 1:40
```

12. Now launch SuperFonts and print the sign in high quality mode.

If you need to edit the sign, launch TimeOut Paint, open the appropriate file, and use the Text Tool to enter new text in the workspace under the rectangle. Use the Marquee Tool to cut any unwanted text and to drag and align any new text in the design.

The paper and ink you use can have a significant impact on the quality of your final product. Consider printing your signs on an attractive color or multicolor paper. Also experiment with various paper textures. For a professional look, try "granite" or "marble" papers. You can also foil stamp your design by applying LaserColor foil to photocopied originals. [See the Company List for a source of the color foil.]

AppleWorks GS Signs

AppleWorks GS's page layout module makes it easy to create small signs and business cards with your Apple IIGs.

If you use AppleWorks GS, create a new page layout document and use the program's rulers to create a rectangle that is 3.5-inches wide by 2-inches high. Use the text tool to create a text frame just inside the rectangle and type the text of your sign. Use AppleWorks GS's font, size, style, and alignment options to arrange the elements of your sign.

When you are done, group the rectangle and text objects into a single element. Then paste multiple copies of the sign on the page. (You can fit ten signs on a standard page.) Follow the procedures described in the accompanying article to cut out and assemble the signs.

If you arrange the copies on the page precisely, you can use the single- or multi-colored perforated business card stock that is available from mail order paper merchants like PaperDirect (see the Company List). If you use perforated stock you do not have to include the rectangular "cutting guide" in your sign layout. And you do not need scissors.

Company List

Your local quick printer probably sells the 3.5-inch by 2-inch magnetic business card blanks you need to complete this month's project, but you can also order the magnets, perforated business card stock, and LaserColor foil from the following mail order supplier:

Business Card Magnets (#AM2000) - \$9.95/25

LaserColor Assortment Pack (#DF2001) - \$19.95

PaperDirect
100 Plaza Drive
Secaucus, NJ 07094
(800) A-PAPERS; Fax: (201) 271-9601

Creating a SuperFonts template that prints multiple copies of your magnetic sign or business card design is time-consuming and frustrating. It is easier to print one sign, make ten photocopies, and then manually cut and paste the ten copies onto a

single "master" sheet. You can then photocopy the master to make the number of signs or cards you need.

Cutting and Assembling the Signs

Finally, you are ready to attach the signs to the magnets. Follow these steps:

1. Cut along the outside border of each sign's rectangle.
2. Peel off and fold back about 1/4-inch of the protective paper on the magnet.
3. Carefully align one edge of your printed sign with the exposed adhesive edge of the magnet and press the sign into place.
4. Remove the remaining protective paper and smooth the sign onto the magnet.

If the sign is larger than the magnet, use a single-edge razor blade or hobby knife to trim the paper. If necessary, you can use a heavier utility knife to trim the magnet.

Conclusion

The projects you can do with AppleWorks, Time-Out Paint, and TimeOut SuperFonts are limited more by your imagination than by the software. Sometimes you have to find workarounds to mimic the capabilities of full-featured desktop publishing programs, but that is part of the enjoyment of being a do-it-yourselfer.

[Dr. Cynthia E. Field has been doing things that can't be done on Apple II computers since 1982. She was the author of inCider/A+'s popular "Press Room" column and is the Contributing Editor of the AppleWorks Forum.]

[Ed: Working copies of the SIGN.TEMPL and SIGN.PRINTER templates and the SIGN.NITE-OUT sample file appear on this month's issue of NAUG on Disk, which costs \$10 from NAUG. The templates require AppleWorks 2.0 or later enhanced with TimeOut SuperFonts. NAUG on Disk requires a 3.5-inch drive.]

How to Create a Cursor Thermometer

by Keith Johnson

This month's macros add a clever feature to AppleWorks: A pop-up "thermometer" that provides an instantaneous graphic representation of where you are in any AppleWorks file. The macros work with AppleWorks 3.0 and AppleWorks 4.

Have you ever been somewhere in the middle of an AppleWorks file and wondered how far into the file the cursor really is? Are you half-way through the word processor document or near the end? Are you getting close to the bottom of the large spreadsheet template you use to do your taxes?

AppleWorks provides some limited indicators. For example, the AppleWorks word processor tells you the current line number of the cursor. If you scroll to the bottom of the document you can determine the total number of lines in the file and can keep mental track of your relative position in the word processor document.

In single record layout, AppleWorks 3.0 tells you which data base record is on your screen and the total number of records in the file; AppleWorks 4 gives that information in both layouts.

But neither version of AppleWorks tells you the total number of lines in the word processor document nor how many rows are in a spreadsheet.

The macros in *Figure 1* display a "thermometer" that shows you graphically where you are in any document. The macros work with AppleWorks 4.x enhanced with UltraMacros 4.3. The section "Changes for Different Versions" describes how to modify the macros so they work with AppleWorks 3.0 enhanced with UltraMacros 3.2.

How to Use the Macro

1. Type the macros shown in *Figure 1* into your

macro file. I used the key combination <ba-W> (for "Where?") to define the macros, but you can replace it with any key combination you prefer. Just be sure that the <asr> macro comes first.

2. Compile the file and save it as your default macro set. [Ed: Step-by-step directions for adding the macro to your default macro set appear in the sidebar "How to Add a Macro" in the April 1994 issue of the *AppleWorks Forum*.]
3. To use the macro, display a document on your screen and press <ba-W>. A thermometer will appear at the bottom of the screen to show you the relative position of the cursor in the file. (The thermometer tells you how many rows down you are in a spreadsheet; it provides no information about the width of the spreadsheet.) Pressing any key erases the thermometer.

Technical Details

Unfortunately, AppleWorks does not store the line number of the last line of a word processor document in memory. However, the program stores the memory address of the current line and the address of the last line.

AppleWorks always starts word processor documents at memory address 16384, so the macro subtracts 16384 from the memory addresses of the current line and last line to determine the current cursor position and the amount of memory used by the document. The macro uses that information to

Figure 1: Macros that Draw a Cursor-Position Thermometer

```
<ba-W>:<asr><
z = x * 79 / y :           { Calculate the length of the thermometer.           }
if z > 79 z = 79 : endif : { Test if the cursor is beyond the end of the document.           }
$1 = " " :                 { Define $1 to be blank to start.           }
($1 = $1 + chr$ 206) z :   { Define $1 as z blots.           }
msg $1 :                   { Display the thermometer.           }
k = key : msg ">!"         { Get keypress, erase the thermometer.           }

<ba-W>:<asp><
posn u,x :                 { Get the location of the current cell.           }
y = peekword $80fd :       { Determine the last row used.           }
ba-W>!                     { Call the thermometer-drawing subroutine.           }

<ba-W>:<awp><
x = peekword $b0 - 16384 :  { Get the address of the current line.           }
y = peekword $7c0c - 16384 : { Get the address of the last line.           }
ba-W>!                     { Call the thermometer-drawing subroutine.           }

<ba-W>:<adb><
posn u,x :                 { Get the location of the current record.           }
y = peekword #dbrecs :     { Get the total number of records.           }
ba-W>!                     { Call the thermometer-drawing subroutine.           }
```

determine the relative position of the cursor in the area of memory that stores the word processor document.

Variable *z* contains the relative position of the cursor in the document. The statement `if z > 79 z = 79` in the sub-routine tests to make certain that the cursor is not past the end of the document. (AppleWorks lets you move the cursor beyond the last row containing text or data in word processor documents and spreadsheet files. Multiplying that value by 79 would generate a *z*-value greater than 79.) If *z* is greater than one, the macro corrects the problem.

`<chr$ 206>` in the macro is a mousetext "solid blot" character that draws the thermometer. You can change this value to represent any other character you desire.

Changes for Different Versions

The macros in *Figure 1* work with AppleWorks 4.x and Ultra 4. For AppleWorks 3.0, change address `$80fd` in the second macro to `$80fc`.

You must also replace `($1 = $1 + chr$ 206) z` in the first macro with

```
begin :
$1 = $1 + chr$ 206 :
z = z - 1 : if z > 1 rpt : endif :
```

Conclusion

Certainly AppleWorks users do not *need* a "thermometer" to tell them where they are in a document or file, but this is one of those nice touches that makes it even easier to use the program.

Do you think Randy Brandt ever anticipated these uses for macros when he developed the first version of MacroWorks back in 1987?

[Keith Johnson is Associate Director of the Fleischmann Planetarium at the University of Nevada.]

[Working copies of these macros appear on this month's issue of NAUG on Disk, which costs \$10 from NAUG. The macros require AppleWorks 3.0 or later. NAUG on Disk requires a 3.5-inch disk drive.]

NAUG BBS

Congratulations to Richard Emley of Frenchtown, New Jersey, the 95,000th caller to the Electronic Forum, NAUG's AppleWorks bulletin board service. Mr. Emley won a one-year extension to his NAUG membership. Call the Electronic Forum for help with AppleWorks or to download templates, fonts, or utility programs. A free service of NAUG. (615) 359-8238.

Estimating Family Contributions to College Costs

by Stan Hecker

This month's template is an AppleWorks spreadsheet that estimates how much the Federal government expects a family to contribute to the cost of a college education. You can create the template with any version of AppleWorks. The author assumes that you know how to use the basic commands in AppleWorks' spreadsheet module.

If you think going to college is difficult, pity the poor parents who have to pay for that education! Fortunately, the Federal government sponsors scholarship, grant, loan, and work-study programs designed to lessen the burden. To determine a student's eligibility for financial help, the government created a 12-page worksheet entitled "Free Application for Federal Student Aid" (FAFSA). Many colleges and universities use the FAFSA form to award financial aid.

A family that completes and submits a timely FAFSA receives a "Student Aid Report" (SAR), but the report arrives long after many college application deadlines have passed. That does not give parents much time to plan their financial strategies or encourage their child to consider a more affordable school.

Fortunately, there are paper-and-pencil "estimators" you can use to plan ahead, but even these forms are complex and time consuming.

This month's template adapts one of these shortcut methods to AppleWorks. You enter information about your family's finances and the template uses the government's formulas to display your "contributions" to your child's education (see the bottom "window" in *Figure 1*). Once you complete the template you can experiment with different "what

Figure 1: Data Entry and Results Windows

File: STUDENT.AID	REVIEW/ADD/CHANGE	Escape: Main Menu
=====A=====B=====C=====		
16	FAMILY (Household) COMPOSITION	
17		
18	Parents (1 or 2) in the student's household ----->	2
19	Age of the household's oldest parent, in years ----->	52
20		
21	Number of children in the student's household who:	
22	WILL attend college during the coming year	
23	(must be 1 or enter a larger number) ----->	2
24	WILL NOT attend college the coming year (zero if the	
25	student is an "only child"; otherwise enter the	
26	number of additional dependent children in the	
27	household ----->	1
28		
29	Other dependents (grandparents, cousins, etc.) ----->	0
30		
=====R=====S=====T=====U=====		
118	STUDENT AID REPORT (Estimated)	Parent(s) Student Total
119	Calculated Family Contribution	\$1,668 \$965 \$2,633

C30: (Label, Protect-N)		
Type entry or use ⌘ commands		
344K Avail		

if" scenarios to plan college finances years before you need to pay the bills.

Limitations

Figure 2 contains the complete template with some sample data. You will enter zeros when you create the template. Then you will use the sample data in *Figure 2* to check your work.

As you can see from the figure, this is a complex template. Even then, I could not accommodate all variations in family income patterns and had to make some assumptions when developing the spreadsheet.

Figure 2: Financial Contribution Template

File: STUDENT.A12 REVIEW/ADD/CHANGE Escape: Main Menu

AppleWorks College Financial Aid Estimating Template

Enter your data below, with money rounded to the nearest dollar.
To browse data-entry area, use Apple-Up Arrow & Apple-Down Arrow.

Limits: Minimum 1 student and 1 parent. Maximum 1-2 parents and 8-9 dependents with 1-9 of the dependents as students. Income and assets can be any size. Use zero for negative income amounts.

Press Apple-K at least twice to calculate the estimates.

NOTE: Template uses 1994-95 American College Testing Service's "A Sample Calculation" but is not guaranteed to match that model or the Federal FAFSA. Contact the ACT or obtain a Federal form.

FAMILY (Household) COMPOSITION

Parents (1 or 2) in the student's household -----> 2
Age of the household's oldest parent, in years -----> 52

Number of children in the student's household who:
WILL attend college during the coming year
(must be 1 or enter a larger number) -----> 2
WILL NOT attend college the coming year (zero if the student is an "only child"; otherwise enter the number of additional dependent children in the household -----> 1
Other dependents (grandparents, cousins, etc.) -----> 0

PARENT(S) INCOME AND TAXES

Parent #1:
Employment Income (from W2 forms or tax form) -----> \$42,900
Federal Taxes (total on joint or single tax return) -----> \$2,543
Parent #2:
Employment Income (from W2 forms or tax form) -----> \$0
Federal Taxes (leave zero if included in cell C34) -----> \$0
All other parental income, taxed or not; include interest and dividends, alimony, unemployment, etc. -----> \$0
(Optional entries follow. National averages--7% for total family income below \$14,000, or 6% if family income is higher--will be used if all cells are left at zero.)
Parents' State and Local Income Tax -----> \$2,574
Parents' Property Taxes -----> \$0
Parents' Other Taxes (sales, fuel, tobacco, etc.) -----> \$0

EMPLOYMENT ALLOWANCE CALCULATION

LOW (\$0-\$7,600) Social Security Tax for Parent #1 \$3,282
MIDDLE (\$7,600--\$8,000) Social Security Tax for Parent #1 \$0
HIGH adjustment (if any) to Social Security Tax for Parent #1 \$0
LOW (\$0-\$7,600) Social Security Tax for Parent #2 \$0
MIDDLE (\$7,600--\$8,000) Social Security Tax for Parent #2 \$0
HIGH adjustment (if any) to Social Security Tax for Parent #2 \$0
Employment Allowance Calculation for Parent #1 \$2,500
Employment Allowance Calculation for Parent #2 \$0
Employment allowance--final result \$2,500

FAMILY INCOME PROTECTION ALLOWANCE COMPOUND "LOOKUP" TABLE

Is to the right and below.

Students --->	1	2	3	4	5	6	7	8	9	10
Family Size, Including Student(s)	2	3	4	5	6	7	8	9	10	
2	\$0,980	\$10,840	\$8,980							
3	\$11,650	\$13,490	\$11,650	\$9,800						
4	\$14,810	\$16,670	\$14,810	\$12,970	\$11,110					
5	\$17,810	\$19,600	\$17,810	\$15,970	\$14,110	\$12,270				
6	\$21,150	\$23,000	\$21,150	\$19,300	\$17,450	\$15,600	\$13,760			
7	\$23,750	\$25,600	\$23,750	\$21,900	\$20,050	\$18,200	\$16,360	\$14,520		
8	\$26,350	\$28,200	\$26,350	\$24,500	\$22,650	\$20,800	\$18,960	\$17,120	\$15,280	
9	\$28,950	\$30,800	\$28,950	\$27,100	\$25,250	\$23,400	\$21,560	\$19,720	\$17,880	\$16,040
10	\$31,550	\$33,400	\$31,550	\$29,700	\$27,850	\$26,000	\$24,160	\$22,320	\$20,480	\$18,640
										\$17,810

THE STUDENT'S INCOME, TAXES, AND ASSETS

Employment Income (from W2 forms or tax form) -----> \$3,520
All other student income, taxed or not; include tips interest, dividends, alimony, unemployment, etc. -----> \$0
Federal Taxes (from federal tax form) -----> \$0
Student's Other Taxes (state and local income tax, fuel taxes, sales taxes, etc.--a 3% national average will be used if this cell is left at zero -----> \$0

STUDENT'S ASSETS AND LIABILITIES:

Savings and cash -----> \$765
Typical lowest monthly checkbook balance -----> \$0
Net worth of business or farm owned by student -----> \$0

PARENTAL MAJOR ASSETS AND LIABILITIES

Market value of real estate (other than the principal family residence) -----> \$0
Balance of mortgage on this real estate or other liability secured by the real estate -----> \$0
Market value of the family farm or business -----> \$0
Debts of the family farm or business -----> \$0
Net value of all other investments -----> \$3,000
Savings (including recognized retirement plan savings--IRA, Keogh, etc.) and cash -----> \$2,500
Typical lowest monthly checkbook balance -----> \$500

LOW (\$0-\$7,600) Social Security Tax for Student \$269
MIDDLE (\$7,600--\$8,000) Social Security Tax for Student \$0
HIGH adjustment (if any) to Social Security Tax for Student \$0

Parent Business/Farm Adj. Net Worth Calculation

Total Net Worth (Parent Net Worth or FPM) \$0

Adjusted Net Worth "Lookup" Table:

	\$0	\$0
	\$75,000	\$0

STUDENT'S TOTAL INCOME: \$3,520
Student's Total Income Tax: \$0
Student's Social Security Tax: \$269
Student's State and Other Taxes: \$106
Student's Income Protection Allowance: \$1,750
Student's Available Income: \$698

STUDENT ASSET DEPLETION

Income Supplement (Assets x 0.35) \$269

My Favorite Template...

3. Use Apple-V to set the standard "Value format" to "Dollars" with no decimal places. (AppleWorks 4 users: Set that format to "Money".)
4. Use Apple-V again to set the recalculation "Frequency" to "Manual".
5. Use Apple-L to change the cell formats to match the entries in *Figure 4*.

Entering Labels and Values

Follow these steps to enter the labels and values in the template:

1. Enter the labels in *Figure 5*. Use hyphens and the "greater than" sign (>) to create the arrows next to the data-entry cells. *[Ed: Hold down the hyphen key and watch the screen until the cell is nearly filled with hyphens. Then enter a "greater than" sign for the arrowhead as the right-most character in the cell. If you overrun the cell, use the Delete Key to eliminate the extra hyphens.]*

Each caret mark (^) represents the number of spaces to enter to indent the line. Remember to type a quotation mark (") before you enter a space or hyphen at the beginning of an entry.

2. Enter the values in *Figure 6*.

Many of the values are part of the large lookup table in cells E44 through P53. That table defines the levels of income the government considers essential to maintaining a household. That portion of your income is not available for college funding. *[Ed: See the sidebar entitled "Using @CHOOSE" for more information about this table.]*

3. Enter a zero in all the remaining data entry cells in column C. This includes the following cells: C19, C27, C29, C33, C34, C36, C37, C39, C43, C44, C45, C49, C51, C52, C55, C58, C59, C60, C66, C68, C69, C70, C71, C73, and C74. *[Ed: The arrows in column B point to the data entry cells in column C.]*

Entering Formulas

Now enter the formulas in *Figure 7*.

Figure 3: Column Widths

<u>Column(s)</u>	<u>Width</u>
A	4
B	57
C	13
D	61
E	13
R	41
S through U	11

Figure 4: Formats of Selected Cells

<u>Cell(s)</u>	<u>Format</u>
B1	Label format: Right justify
C18 through C29	Value format: Fixed, 0 decimal places
G44 through P44	Label format: Center
D45	Label format: Right justify
D81 through D88	Value format: Fixed, 0 decimal places
E45 through E53	Value format: Fixed, 0 decimal places
F81 through F88	Value format: Fixed, 0 decimal places
R118	Label format: Center
S118 through U118	Label format: Right justify

Many of the worksheet's calculations derive from business and financial conventions. For example, cells E74 through E77 calculate the adjusted net worth of a family-owned business or farm. The formula in cell E74 states that the adjusted net worth is a flat 40% if the net worth of the enterprise is less than \$75,000. If the net worth is between \$75,000 and \$230,000, the adjusted net worth is \$30,000 plus 50% of the amount over \$75,000 (cell E75). And so on, in cells E76 and E77.

Other formulas are unique to college-cost analysis. For instance, the federal government gives an employment allowance when calculating the family's share of the cost of a college education. This is money that is excluded from college-cost calcu-

My Favorite Template...

lations. The allowance is 35% of the parent's gross income up to a maximum allowance of \$2500. The formula in cell E40 (and its copy in cell E41) calculates the allowance for one parent. If both parents work, only the smaller of the two allowances is allowed (cell E42).

Copying Values and Formulas

Now you will copy some values and formulas from one area of the spreadsheet to another. Several of the formulas will need to be changed slightly after they are moved. Follow these steps:

1. Use Apple-C to copy "Within worksheet" cells D81 through D88 to cell F81.
2. Copy "Within worksheet" cells E33 through E35 to cell E36. Specify "No change" in response to all the prompts.
3. In cell E36 use Apple-U, Apple-E (to switch to the "overstrike" cursor), and the Arrow Keys to change the two references from "C33" to "C36".
4. In cell E37 use Apple-U to change the two references from "C33" to "C36".
5. In cell E38 use Apple-U to change the two references from "E34" to "E37".
6. Copy "Within worksheet" cells E33 through E35 to cell E65. Specify "No change" in response to all the prompts.
7. Use Apple-U in cells E65 and E66 to change references from "C33" to "C49".
8. Use Apple-U in cell E67 to change both references from "E34" to "E65".
9. Copy "Within worksheet" cell E40 to E41. Specify "No change" at the prompt.
10. Use Apple-U in cell E41 to change the reference from "C33" to "C36".
11. Copy "Within worksheet" cell F45 to cells F46 through F53. Specify "No change" for the reference to cell C23. Make all other cell references "Relative".
12. Use Apple-E to switch back to the insert cursor.

Protecting the Worksheet

Next you will protect your work. Follow these steps:

1. Move the cursor to cell A1, press Apple-L, and select "Block."
2. Press Apple-9 and Apple-> to highlight the entire template. (AppleWorks 1.x and 2.x users: Highlight cells A1 through U119.) Then press the Return Key.

3. Choose "Protection" and specify "Nothing".

This protects the whole worksheet against data entry. You will now lower the protection for data-entry cells by continuing with these steps:

4. Use Apple-L to lower protection to "Values only" for cells C18, C19, C23, C27, C29, C33, C34, C36, C37, C39, C43, C44, C45, C49, C51, C52, C55, C58, C59, C60, C66, C68, C69, C70, C71, C73, and C74.
5. Use Apple-V to make sure Protection is "On".

Creating the Results Window

Now you will create the Results window. This panel, which appears at the bottom of the screen, displays the contribution that is expected from parent(s) and student. Follow these steps:

1. Move the cursor so cell R103 is in the top left-hand corner of the screen.
2. Move the cursor to cell R118. It contains the label "STUDENT AID REPORT (Estimated)".
3. Use Apple-W and select "Top and bottom". The screen will split into two sections, with the main worksheet above and the Results window below.
4. Use Apple-J to "jump" back to the upper window.
5. Move the cursor to cell A1. That brings the data-entry area into view.
6. Save the template.

Test and Lock the Template

Now you should test and correct any errors in your template. Follow these steps:

Figure 5: Labels

Cell(s)	Label	Cell(s)	Label
B1	AppleWorks College Financial Aid Estimating Template	B37	^^Federal Taxes (leave zero if included in cell C34) --->
B3-C3	Enter your data below, with money rounded to the nearest dollar.	B38	All other parental income, taxed or not; include interest
B4-C4	To browse data-entry area, use Apple-Up Arrow & Apple-Down Arrow.	B39	^^and dividends, alimony, unemployment, etc. -->
B6-C6	Limits: Minimum 1 student and 1 parent. Maximum 1-2 parents and 8-9	B40	(Optional entries follow. National averages--7% for total
B7-C7	dependents with 1-9 of the dependents as students. Incomes and	B41	^^family income below \$14,000, or 6% if family income is
B8-C8	assets can be any size. Use zero for negative income amounts.	B42	^^higher--will be used if all cells are left at zero.)
B10	Press Apple-K at least twice to calculate the estimates.	B43	^^Parents' State and Local Income Taxes ----->
B12-C12	NOTE: Template uses 1994-95 American College Testing Service's	B44	^^Parents' Property Taxes ----->
B13-C13	"A Sample Calculation" but is not guaranteed to match that model	B45	^^Parents' Other Taxes (sales, fuel, tobacco, etc.) ---->
B14-C14	or the Federal FAFSA. Contact the ACT or obtain a Federal form.	B47	THE STUDENT'S INCOME, TAXES, AND ASSETS
B16	FAMILY (Household) COMPOSITION	B49	^^Employment Income (from W2 forms or tax form) ----->
B18	Parents (1 or 2) in the student's household --->	B50	^^All other student income, taxed or not; include tips,
B19	Age of the household's oldest parent, in years ----->	B51	^^interest, dividends, alimony, unemployment, etc. ---->
B21	Number of children in the student's household who:	B52	^^Federal Taxes (from federal tax form) ----->
B22	^^WILL attend college during the coming year	B53	^^Student's Other Taxes (state and local income tax,
B23	^^^^(must be 1 or enter a larger number) ----->	B54	^^^^fuel taxes, sales taxes, etc.--a 3% national average
B24	^^WILL NOT attend college the coming year (zero if the	B55	^^^^will be used if this cell is left at zero ->
B25	^^^^student is an "only child"; otherwise enter the	B57	Student's Assets and Liabilities:
B26	^^^^number of additional dependent children in the	B58	^^Savings and cash ----->
B27	^^^^household) ----->	B59	^^Typical lowest monthly checkbook balance ---->
B29	Other dependents (grandparents, cousins, etc.) ----->	B60	^^Net worth of business or farm owned by student ----->
B31	PARENT(S) INCOME and TAXES	B63	PARENTAL MAJOR ASSETS AND LIABILITIES
B32	Parent #1:	B65	^^Market value of real estate (other than the
B33	^^Employment Income (from W2 forms or tax form) ----->	B66	^^^^principal family residence) ----->
B34	^^Federal Taxes (total on joint or single tax return) -->	B67	^^Balance of mortgage on this real estate or other
B35	Parent #2:	B68	^^^^liability secured by the real estate ----->
B36	^^Employment Income (from W2 forms or tax form) ----->		

Figure 5: Labels (Continued)

Cell(s)	Label	Cell(s)	Label
B69	^^Market value of the family farm or business - ----->	D72	Adjusted Net Worth "Lookup" Table:
B70	^^Debts of the family farm or business ----- ----->	D80	Education Savings/Asset Protection Allowance "Lookup" Table
B71	^^Net value of all other investments ----- ----->	D92	Net Worth of Secondary Real Estate and Invest- ments
B72	^^Savings (Excluding recognized retirement plan	D93	Adjusted net worth of business or farm
B73	^^^^^savings--IRA, Keogh, etc.) and cash ----- ----->	D94	Cash, Savings, and Checking
B74	^^Typical lowest monthly checkbook balance ---- ----->	D95	^^NET WORTH
B78	END OF DATA ENTRY AREA: PRESS APPLE-K TWICE.	D96	Education Savings & Asset Protection Allowance
D33	LOW (\$0-57,600) Social Security Tax for Parent #1	D97	Discretionary Net Worth
D34	MIDDLE (\$57,600--80,000) Social Security Tax for Parent #1	D98	Income Supplement (Asset depletion at 12%)
D35	HIGH adjustment (if any) to Social Security Tax for Parent #1	D102	Adjusted Available Income
D36	LOW (\$0-57,600) Social Security Tax for Parent #2	D103	Adjusted Available Income Assessment "Lookup" Table
D37	MIDDLE (\$57,600--80,000) Social Security Tax for Parent #2	D112	Total Contribution
D38	HIGH adjustment (if any) to Social Security Tax for Parent #2	D113	Parent Contribution for the applicant
D40	Employment Allowance Calculation for Parent #1	E44	Students --->
D41	Employment Allowance Calculation for Parent #2	G44	1 [Ed: Enter the numbers in cells G44
D42	^^Employment allowance--final result	H44	2 through P44 as labels by typing a
D43	Family Income Protection Allowance Compound "Lookup" Table	I44	3 quotation mark before entering each
D44	is to the right and below.	J44	4 number.]
D45	Family Size, Including Student(s)	K44	5
D56	Parents' Total Income:	L44	6
D57	Parents' Total Income Tax:	M44	7
D58	Parents' Social Security Tax:	N44	8
D59	(Intermediate Result for calculated "other" taxes)	O44	9
D60	State and Other Taxes:	P44	10
D61	Employment Allowance:	R61	Student's Total Income:
D62	Income Protection:	R62	Student's Total Income Tax:
D63	Available Income:	R63	Student's Social Security Tax:
D65	LOW (\$0-57,600) Social Security Tax for Student	R64	Student's State and Other Taxes:
D66	MIDDLE (\$57,600--80,000) Social Security Tax for Student	R65	Student's Income Protection Allowance:
D67	HIGH adjustment (if any) to Social Security Tax for Student	R66	Student's Available Income:
D69	Parent Business/Farm Adj. Net Worth Calculation	R69	Student Asset Depletion
D70	Total Net Worth (Parent Net Worth or PNW)	R71	Income Supplement (Assets x .35)
		R118	STUDENT AID REPORT (Estimated)
		R119	Calculated Family Contribution
		S118	Parent(s)
		T118	Student
		U118	Total

Figure 6: Values

Cell	Value	Cell	Value	Cell	Value
C18	1	E84	38500	I48	15970
C23	1	E85	43900	I49	19300
D73	0	E86	50900	I50	21900
E73	0	E87	59800	I51	24500
D74	75000	E88	66300	I52	27100
D75	230000	E104	-750	I53	29700
D76	385000	E105	-750	J47	11110
D77	999999999	G45	10840	J48	14110
D81	0	G46	13490	J49	17450
D82	34	G47	16670	J50	20050
D83	39	G48	19600	J51	22650
D84	44	G49	23000	J52	25250
D85	49	G50	25600	J53	27850
D86	54	G51	28200	K48	12270
D87	59	G52	30800	K49	15600
D88	64	G53	33400	K50	18200
D104	-100000	G81	0	K51	20800
D105	3409	G82	18500	K52	23400
D106	9700	G83	24100	K53	26000
D107	12200	G84	26900	L49	13760
D108	14600	G85	30300	L50	16360
D109	17101	G86	34300	L51	18960
D110	19601	G87	39300	L52	21560
E45	2	G88	42900	L53	24160
E46	3	H45	8980	M50	14520
E47	4	H46	11650	M51	17120
E48	5	H47	14810	M52	19720
E49	6	H48	17810	M53	22320
E50	7	H49	21150	N51	15280
E51	8	H50	23750	N52	17880
E52	9	H51	26350	N53	20480
E53	10	H52	28950	O52	16040
E81	0	H53	31550	O53	18640
E82	25800	I46	9800	P53	16800
E83	33900	I47	12970	R65	1750

1. Use Apple-N to change the file name to "EXAMPLE".
2. Enter the data in Figure 2 into the Data Entry Area of the template.
3. Press Apple-K twice and compare the results in Section C to the values in Figure 2. Correct the formulas and labels as necessary and press Apple-K twice to check your work.
4. If you are using AppleWorks 4, lock the template from the Other Activities and then the File Activities Menus. If you use an earlier version of AppleWorks, lock the template with

a file-utility program or the BASIC "LOCK" command. [Ed: For step-by-step directions that describe the locking process, see the article entitled "How to Lock Your Templates" in the May 1991 issue of the *AppleWorks Forum*.]

Using the Worksheet

Follow these steps to use the template:

1. Use Apple-N to change the name to "TOM.95.96" where "TOM" is the name of your child and the numerals designate the academic year.

My Favorite Template...

2. Enter your family's financial information in column C.
3. Press Apple-K twice to view your family's estimated contribution to the cost of college.
4. Save the spreadsheet.

If you use a tax-planning program such as the 1040Works Tax Planner, you can prepare several copies of the STUDENT.AID template that create a year-by-year picture of the family's college contribution responsibilities. But even without tax-planning software, you can use the template years in advance to help plan for college's financial impact. An interesting exercise is to enter all college savings as an asset of the student and jot down or print out the estimated contributions displayed in the Results window. Next, move the college savings so that it becomes an asset of the parents and recalculate the spreadsheet. If there is a substantial difference, you may want to revise your college savings investment program.

Conclusion

This month's template estimates the yearly contribution that colleges and the Federal government expect you to make toward your child's college education. Like the Federal formulas upon which it is based, the template automatically adjusts its results based upon family income, assets, and number of dependents and students. This template is complex, but it demonstrates another practical use of AppleWorks' spreadsheet capabilities.

[Stan Hecker is on the administrative staff at Michigan State University, East Lansing, Michigan, and is a partner in H&H Consulting, a Michigan partnership specializing in school district finance and population studies.]

[The author used the model in the pamphlet "Applying for Financial Aid: A Guide for Parents and Students" by the American College Testing Program to prepare this template. NAUG members planning to finance a college education should order this pamphlet and the "ACT Estimator", a paper worksheet available from college and university financial aid offices. ACT Finan-

Figure 7: Formulas

Cell	Formula
E33	@IF(C33<57600,C33*.0765,0)
E34	@IF(C33>57599,((C33-57600)*.0145)+4406.4,0)
E35	@IF(E34>5529,5529-E34,0)
E40	@MIN(2500,C33*.35)
E42	@IF(C33=0,E41,@IF(C36=0,E40,@MIN(E40,E41)))
E56	+C33+C36+C39
E57	+C34+C37
E58	@SUM(E33...E38)
E59	@IF(E56>14999,E56*.06,E56*.07)
E60	@IF(@MAX(C43,C44,C45)>0,@SUM(C43...C45),E59)
E61	+E42
E62	+Q54
E63	+E56-E57-E58-E60-E61-E62
E70	+C69-C70
E74	+E70*.4
E75	30000+((E70-75000)*.5)
E76	30000+((E70-230000)*.6)
E77	200500+(E70-385000)
E92	+C66-C68+C71
E93	@LOOKUP(E70,D73...D77)
E94	+C73+C74
E95	@SUM(E92...E94)
E96	@IF(C18=0,0,@IF(C18=1,@LOOKUP(C19,F81...F88),@LOOKUP(C19,D81...D88)))
E97	+E95-E96
E98	@IF(0>=C97,0,C97*.12)
E102	+E63+E98
E106	2134+((E102-9700)*.25)
E107	2759+((E102-12200)*.29)
E108	3455+((E102-14600)*.34)
E109	4305+((E102-17100)*.4)
E110	5305+((E102-19600)*.47)
E112	@LOOKUP(E63,D104...D110)
E113	+E112/C23
F45	@CHOOSE(C23,G45,H45,I45,J45,K45,L45,M45,N45,O45,P45)
Q54	@LOOKUP(@SUM(C18,C23,C27,C29),E45...E53)
S61	+C49+C51
S62	+C52
S63	@SUM(E65...E67)
S64	@IF(C55=0,C49*.03,C55)
S66	@IF((S61-@SUM(S62...S65))<0,0,(S61-@SUM(S62...S65))* .5)
S71	(C58+C59+C60)*.35
S119	@IF((E112/C23)<0,0,E112/C23)
T119	@IF((S66+S71)<0,0,S66+S71)
U119	+S119+T119

cial Need Estimator, P.O. Box 4029, Iowa City, Iowa, 52244-9935. Telephone (319) 337-1615.]

Using @CHOOSE

The most unusual formulas in the accompanying template use AppleWorks' @CHOOSE function. Combined with @LOOKUP, @CHOOSE lets you use two-variable arrays (or "tables") in your templates.

Perhaps the most familiar two-variable arrays are the Federal Income Tax tables. You choose the correct column for your marital status. Then you slide your finger down the column until you come to the range of values that includes your taxable income. The number at the intersection of the column and line is the tax you owe.

In this month's template, a living allowance is exempt from consideration as a source of college funds.

The allowance depends on the size of the family and the number of college students in the family. The necessary lookup table appears between cells E44 and P53. (The @CHOOSE function tells AppleWorks which column to use in the table.) The template uses @CHOOSE to copy that column into cells F45 through F53. The @LOOKUP function tells AppleWorks how far down the column to look for the allowance for your family.

Cell F45 and its clones (cells F46 through F53) each contain a modified version of this @CHOOSE statement:

```
@CHOOSE(C23,G45,H45,I45,J45,K45,L45,M45,N45,O45,P45)
```

When you press Apple-K the first time, the @CHOOSE statements copy the correct column of values from the adjoining table to this short segment of column F. For example, if there are three students in the family, the appropriate segments of columns E and F look like the example in Figure A. When you press Apple-K the second time, the

Figure A: Sample @CHOOSE Results

File:	STUDENT.AID	REVIEW/ADD/CHANGE	Escape: Main Menu
=====D=====E=====F=====G=====H=====			
42	Employment allowance--final result	\$0	
43	Family Income Protection Allowance		
44	is to the right and below.	Students---->	1 2
45	Family Size, Including Student(s)	2	\$10,840 \$8,980
46		3	\$9,800 \$13,490 \$11,650
47		4	\$12,970 \$16,670 \$14,810
48		5	\$15,970 \$19,660 \$17,810
49		6	\$19,300 \$23,000 \$21,150
50		7	\$21,900 \$25,600 \$23,750
51		8	\$24,500 \$28,200 \$26,350
52		9	\$27,100 \$30,800 \$28,950
53		10	\$29,700 \$33,400 \$31,550
54			
55			
56	Parents Total Income:	\$0	
=====R=====S=====T=====U=====			
118	STUDENT AID REPORT (Estimated)	Parent(s)	Student Total
119	Calculated Family Contribution	\$0	\$0 \$0

F45: (Width: 9, Value, Protect-N)			
@CHOOSE(C23,G45,H45,I45,J45,K45,L45,M45,N45,O45,P45)			
Type entry or use <input type="checkbox"/> commands			
08/14/94 5:26 pm			

@LOOKUP formula in cell Q54:

```
@LOOKUP(@SUM(C18,C23,C27,C29),E45...E53)
```

selects the correct value from column E and returns the corresponding value from column F. For example, if there are five family members, the income allowance is \$15,970. When it comes to calculating a family's contribution to college costs, the first \$15,970 of income is exempt from consideration in a family of five if three of them are students.

As you can see from the accompanying template, the @CHOOSE and @LOOKUP functions let you build powerful templates. [Ed: Step-by-step directions for using @CHOOSE and @LOOKUP appear in the articles entitled "Branching Spreadsheets: How to Use @CHOOSE and @LOOKUP" in the June and July 1989 issue of the AppleWorks Forum. These articles also appeared in the booklet "How to Get Started with the Spreadsheet Module" which costs \$5.50 postpaid, from NAUG.]

[A working copy of this template and a sample data file appears on this month's issue of NAUG on Disk which costs \$10 from NAUG. NAUG on

Disk requires a 3.5-inch disk drive. The template requires AppleWorks 2.0 or later.]

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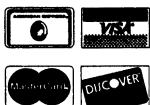
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STARGATE

The entire universe is your enemy as you struggle to rescue humanoids stranded on the planet surface. To take them into a Warp you must reach the Stargate. But getting there isn't easy. Yllecian space guppies, Dynamos, Space huns, Phreds, Big reds, Munchies, landers, Baiters, Pods and Swarms block the way spewing death and destruction. Will your cloaking device protect you from the threat within... Mutant humanoids?



ROBOTRON: 2084

It's the year 2084, and robots are turning against their masters. Saved by a genetic accident, only you can resist their mutant re-programming and defend humanity. Grunts close in. The Brains launch missiles. Tanks, Sheroids and Electrodes spell death. And then there's the Hulk—immune to your laser. Your mission is to rescue, evade and destroy. Good Luck.



JUNGLE HUNT



Savage cannibals have kidnapped your traveling companion, and you must rescue her before they turn her into stew! In the deep jungle forest, you jump from rope to rope. Then you brave a crocodile-infested river and a landslide of huge boulders. You reach the cannibal's campsite just in time—your sweetie hangs suspended over a hot cauldron of boiling goo!

DEFENDER

Landers, Bombers, Baiters, Pods, and Swarms. The alien attack has come, and defeat at the hands of crazed invaders threatens the humanoids. Their only hope is the spaceship, Defender. Armed with smart bombs and able to shift into hyperspace, Defender evens the score only to become the object of another foul attack: kidnapped humanoids transformed into killer mutants.

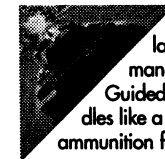


MOON PATROL

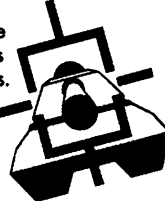


Applications being accepted for replacement gunners in high-risk job. Hostile environment. Road conditions nonexistent due to meteor and crater hazards. Small native population of killer plants also reported. Quick reflexes, marksmanship and driving skill a must. Bonuses for UFO's and enemy tanks. Recognition for valor. Volunteers only.

BATTLEZONE



You have full directional control through an entire landscape filled with hazards and targets. Tanks maneuver around pyramids to get you in their sights. Guided missiles hurtle toward you. But your vehicle handles like a dream on 0-gravity glide, and you've got plenty of ammunition for saucer hunting. What could go wrong?



CENTIPEDE



An insidious invasion of multiplying insects (centipedes, jumping spiders, poisonous scorpions, and frenzied fleas) pose different perils to the mushroom patch. You must repeatedly blast enraged creepers and stubborn obstacles or lose your enchanted fungus. Remember to listen for distinctive sounds of the attacking bugs; and watch out for blasted centipede segments, each one grows a new head.

GREMLINS

Applications being accepted for replacement gunners in high-risk job. Hostile environment. Road conditions nonexistent due to meteor and crater hazards. Small native population of killer gremlins also reported. Quick reflexes, marksmanship and diving a must. Bonuses for UFO's and enemy tanks. Recognition valor. Volunteers only.



DIG DUG



Dodging and blasting Pookas, and dropping rocks on fire-breathing Fygars; Dig Dug burrows his way through a maze of subterranean paths. Ripe fruits and veggies, loaded with points are his passion. But the evil denizens of the underground pack a potentially lethal wallop, and can hide behind fruits. Even when Dig Dug kills them they may come back as Ghosts.

DONKEY KONG

You can feel an excitement tingle up and down your spine when you play Donkey Kong at home, just like at an arcade. Your joystick guides Mario, the fearless carpenter, up the girders and elevators as he attempts to rescue his sweetheart from the clutches of Donkey Kong. All the thrills of the arcade game.



GALAXIAN

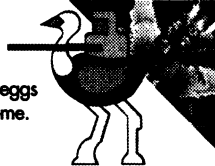
You feel that spine-tingling exhilaration every time you play GALAXIAN in an arcade. Now the same sensation is yours at home.

Wave after wave of Drones, Emissaries, Hornets and Commanders come winging in from deep space. Skillfully you slide your ship right and left with your joystick, dodging their fire and blasting them out of the universe.



JOUST

In days of olde, when knights were bolde—they never saw anything like this! You don your helmet, hoist your lance and mount your ostrich to do battle with the evil Buzzard Riders in deep space! Pterodactyls to the right of you, alien eggs to the left—learn to fly so you won't die so very far from home.



MS. PAC-MAN

It was the love match of the century, PAC-MAN, star of the arcade, and his leading lady the unforgettable MS. PAC-MAN. Now their romance continues. You guide MS. PAC-MAN through four different mazes as she gobbles up dots, energy pills, fruit and pretzels. But watch out! The ghosts aren't far behind her. Can she escape them?



TRACK & FIELD

You've worked long and hard to make it this far. Now it's time for head-to-head competition in the 100 meter dash, long jump, javelin, 110 meter hurdles, hammer throw or high jump. You're out to beat the best times and distances on record. Included is a special arcade controller which gives you everything you need to break the world record in athletic competition.



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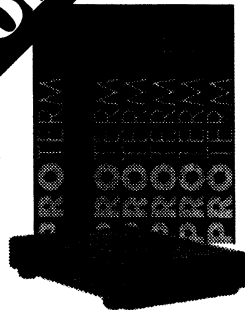
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New Disks in the NAUG Library

DeskTools IV Updater Disk

Quality Computer's DeskTools IV disk contains AppleWorks 4-compatible versions of the 22 most popular TimeOut applications on the original DeskTools disks. These include Area Codes, ASCII Values, Case Converter, Calculator, Calculator Plus, Desk Sorter, Directree, Encrypter, Envelope Addresser, Formula to Value, Help Screens, Librarian, Line Sorter, Measurements, Note Pad, Page Preview, Program Selector, Screen Out, Screen Print, Stop Watches, and Word Count. DeskTools IV costs \$29.95 from Quality Computers.

NAUG's new DeskTools IV Updater lets you use these utilities with AppleWorks 4.3. The updater requires AppleWorks 4 and DeskTools IV. Our thanks to Dan Verkade for submitting this disk to the NAUG library.

AppleWorks 4 Windows Disk

AppleWorks 4 users will appreciate Roy Barrows' new AppleWorks 4 Windows Disk, which contains TimeOut enhancements that let you open "windows" to other AppleWorks modules in your documents.

ADB Window opens an operational data base window with up to 20 records in a word processor document. **ASP Window** opens a small (3-cell) spreadsheet in a word processor document. **Window AWP** creates a 50-line word processor window in any AppleWorks data base or spreadsheet file.

Other utilities on the disk include **Cap Screen** (displays a portion of your screen in any other document), **Clipboard II** (captures a block of text in any module and reproduces it with all formatting intact in any other module), and **Help Printer** (captures up to 99 lines of a Help Screen and pastes the text into a word processor document).

Ultra 4.3 Toolkit Disk

This is Roy Barrows' valuable "toolkit" filled with utilities that help UltraMacros 4.3 owners write macros for AppleWorks 4. The TimeOut utilities on this disk include **Annotate** (makes it easier to annotate your macros), **Key Tester** (captures the

ASCII and screen value of any character), **Memory Peek** (displays the ASCII values and text equivalent of the entries in any 15 consecutive memory locations you designate), **Position Message Screen** (reports the screen position of any on-screen location), **TAPL Developer** (creates TAPL Task File templates), and **U4 Tools** (eight menu-driven tools for Ultra 4.3). The disk requires AppleWorks 4.x enhanced with UltraMacros 4.3.

Our thanks to Roy Barrows for contributing these valuable disks to the NAUG library. Complete documentation appears in AppleWorks word processor files on the disks.

Young's AppleWorks 4 Utilities Disk

NAUG's new Young's AppleWorks 4 Utilities Disk includes two easy-to-use utilities that add valuable functionality to AppleWorks 4.

TimeOut Menus changes your TimeOut Menus so they only display the TimeOut applications that work in your current AppleWorks module. That gives you easier-to-read menus and keeps you from selecting TimeOut applications that will not work with the current AppleWorks file.

AFTYHODLS (which stands for "Add File That You Had On Desktop Last Session") is a TimeOut application that lists the files you had on the desktop the last time you used AppleWorks. Launch AppleWorks 4, select "Add Latest Files" from the TimeOut Menu, and AFTYHODLS displays a menu of the files on your desktop the last time you quit AppleWorks. Select the file you want and AFTYHODLS loads the file onto your desktop.

Our thanks to Rod Young for contributing these creative utilities to the NAUG library.

How to Order

These disks are available in 5.25-inch (\$4) or 3.5-inch (\$6) format. (Add \$2 s/h *per order*.) International shipping additional. Order from: Public Domain Library, NAUG, Box 87453, Canton, MI 48187; (313) 454-1115; Fax: (313) 454-1965. NAUG accepts Visa and MasterCard.

How to Get Help with Your Apple IIGs

All New Data!

Each month, the *AppleWorks Forum* lists the member-volunteers who offer technical support for AppleWorks. This month's list identifies the volunteers who can answer questions about Apple IIGs computers and IIGs software. NAUG recently updated its Members Helping Members data base; this page lists the volunteers who responded by September 15, 1994.

How to Use this List

To the left of each volunteer's name are numbers indicating the Apple IIGs hardware and programs that consultant supports.

- | | |
|-----------------------|--------------------|
| 1 = Hardware | 8 = GS/OS 6.x |
| 2 = AppleWorks GS | 9 = HyperCard IIGS |
| 3 = Desk Accessories | 10 = HyperStudio |
| 4 = Diversi Key | 11 = SoftSwitch |
| 5 = Express | 12 = Switch-It! |
| 6 = GraphicWriter III | 13 = The Manager |
| 7 = GS/OS 5.x | |

	City	Home	Work
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1,3,6	Ken Duncan	Anchorage	907-274-5809
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1,2,8,13	Lyle Graff	Littleton	303-794-5970 303-977-4557
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Illinois			
1,3,10	William Davis	Hinsdale	708-655-9142 708-887-1730
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1-3,6-8,10,13	Dan Crutcher	Louisville	502-895-2720 502-625-0100
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